



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2013-0670; Directorate Identifier 2013-NM-081-AD]**

**RIN 2120-AA64**

**Airworthiness Directives; The Boeing Company Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** We propose to adopt a new airworthiness directive (AD) for certain The Boeing Company Model 737-600, -700, -800, -900, and -900ER airplanes modified by particular supplemental type certificates (STC). This proposed AD was prompted by reports of cracks found during inspections of the in-flight entertainment system radome assembly. This proposed AD would require repetitive detailed inspections for cracks in the radome assembly, and replacement of the radome if necessary. We are proposing this AD to detect and correct cracks in the radome assembly, which could result in the radome (or pieces) separating from the airplane and striking the tail, and consequently reducing the controllability of the airplane.

**DATES:** We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Live TV, 8900 Hangar Boulevard, Orlando, FL 32827; telephone 407-812-2600; fax 407-812-2526; Internet <http://www.livetv.net>. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Barry Culler, Aerospace Engineer, Airframe Branch, ACE-117A, FAA, Atlanta Aircraft Certification Office (ACO), 1701 Columbia Avenue, College Park, GA 30337; phone: 404-474-5546; fax: 404-474-5605; email: [william.culler@faa.gov](mailto:william.culler@faa.gov).

### **SUPPLEMENTARY INFORMATION:**

#### **Comments Invited**

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section.

Include “Docket No. FAA-2013-0670; Directorate Identifier 2013-NM-081-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

### **Discussion**

We received reports of cracks in 26 radomes. The cracks were found during inspections of the radome assembly of various Model 737 series airplanes that had in-flight entertainment systems installed using certain STC issued to Live TV. The STC numbers are STC ST00284BO, [http://rgl.faa.gov/Regulatory\\_and\\_Guidance\\_Library/rgstc.nsf/0/3ecc2e5e5f408bc1862579b30048ed60/\\$FILE/ST00284BO.pdf](http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgstc.nsf/0/3ecc2e5e5f408bc1862579b30048ed60/$FILE/ST00284BO.pdf); and STC ST02887AT, [http://rgl.faa.gov/Regulatory\\_and\\_Guidance\\_Library/rgstc.nsf/0/9bf85b85ea3e295d8625735600721055/\\$FILE/ST02887AT.pdf](http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgstc.nsf/0/9bf85b85ea3e295d8625735600721055/$FILE/ST02887AT.pdf). Investigation of the cause of the cracks revealed that lack of dimensional controls on the radome manufacturing drawings can result in the introduction of preload stress on the radome during its assembly with the skirt fairing. Preload stress combined with flight or handling stress, such as maintenance personnel stepping on the radome fairing assembly, might initiate a crack. The radome manufacturing drawings were revised on September 13, 2010, to add a control dimension, which was incorporated into production at radome serial number 498. Cracks in the radome, if not corrected, could result in the radome (or pieces) separating from the

airplane and striking the tail, and consequently reducing the controllability of the airplane.

### **Relevant Service Information**

We reviewed Live TV Service Bulletin B737-53-0011, dated March 29, 2013. The service information describes procedures for repetitive inspections for cracks in the outer ply of the radome and replacing the radome if any crack is found.

### **FAA's Determination**

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

### **Proposed AD Requirements**

This proposed AD would require accomplishing the actions specified in the service information described previously, except as discussed under "Differences Between the Proposed AD and the Service Information." In addition, if any crack is found in a radome during an inspection, this proposed AD would require sending the inspection results to Live TV.

The FAA worked in conjunction with industry, under the Airworthiness Directives Implementation Aviation Rulemaking Committee, to enhance the AD system. One enhancement was a new process for annotating which steps in the service information are required for compliance with an AD. Differentiating these steps from other tasks in the service information is expected to improve an owner's/operator's understanding of crucial AD requirements and help provide consistent judgment in AD compliance. The actions specified in the service information described previously include steps that are labeled as RC (required for compliance) because these steps have a direct effect on detecting, preventing, resolving, or eliminating an identified unsafe condition.

As noted in the specified service information, steps labeled as RC must be done to comply with the proposed AD. However, steps that are not labeled as RC are recommended. Those steps that are not labeled as RC may be deviated from, done as part of other actions, or done using accepted methods different from those identified in the service information without obtaining approval of an AMOC, provided the steps labeled as RC can be done and the airplane can be put back in a serviceable condition. Any substitutions or changes to steps labeled as RC will require approval of an alternative method of compliance.

### **Differences Between the Proposed AD and the Service Information**

Live TV Service Bulletin B737-53-0011, dated March 29, 2013, recommends that the initial detailed inspection be done within 1,250 flight hours from 120 days following the release date of that service bulletin. We have determined that the compliance time should be within 1,250 flight hours after the effective date of this AD. This difference has been coordinated with Live TV.

### **Costs of Compliance**

We estimate that this proposed AD affects 165 airplanes of U.S. registry.

We estimate the following costs to comply with this proposed AD:

#### **Estimated costs**

<b>Action</b>	<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>	<b>Cost on U.S. operators</b>
Inspections	1 work-hour X \$85 per hour = \$85, per inspection cycle	N/A	\$85, per inspection cycle	\$14, 025, per inspection cycle

We estimate the following costs to do any necessary replacements that would be required based on the results of the proposed inspections. We have no way of determining the number of aircraft that might need this replacement:

### On-condition costs

Action	Labor cost	Parts cost	Cost per product
Replacement	8 work-hours X \$85 per hour = \$680	\$23,000	\$23,680

### Paperwork Reduction Act

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB control number. The control number for the collection of information required by this AD is 2120-0056. The paperwork cost associated with this AD has been detailed in the Costs of Compliance section of this document and includes time for reviewing instructions, as well as completing and reviewing the collection of information. Therefore, all reporting associated with this AD is mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to the FAA at 800 Independence Ave., SW, Washington, DC 20591. ATTN: Information Collection Clearance Officer, AES-200.

### Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds

necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

**§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

**The Boeing Company:** Docket No. FAA-2013-0670; Directorate Identifier 2013-NM-081-AD.

**(a) Comments Due Date**

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to The Boeing Company Model 737-600, -700, -800, -900, and -900ER airplanes, certificated in any category, with Live TV radomes having part number (P/N) 5063-100-V3 or 5063-101-V2 and a serial number in the range of 001 through 497 inclusive, and modified by the applicable supplemental type certificate (STC) identified in paragraphs (c)(1) and (c)(2) of this AD.

(1) ST00284BO,

[http://rgl.faa.gov/Regulatory\\_and\\_Guidance\\_Library/rgstc.nsf/0/3ecc2e5e5f408bc1862579b30048ed60/\\$FILE/ST00284BO.pdf](http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgstc.nsf/0/3ecc2e5e5f408bc1862579b30048ed60/$FILE/ST00284BO.pdf).

(2) ST02887AT,

[http://rgl.faa.gov/Regulatory\\_and\\_Guidance\\_Library/rgstc.nsf/0/9bf85b85ea3e295d8625735600721055/\\$FILE/ST02887AT.pdf](http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgstc.nsf/0/9bf85b85ea3e295d8625735600721055/$FILE/ST02887AT.pdf).

**(d) Subject**

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 53, Fuselage.



**(e) Unsafe Condition**

This AD was prompted by reports of cracks found during inspections of the radome assembly. We are issuing this AD to detect and correct cracks in the in-flight entertainment system radome assembly, which could result in the radome (or pieces) separating from the airplane and striking the tail, and consequently reducing the controllability of the airplane.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Repetitive Inspections and Corrective Actions**

Within 1,250 flight hours after the effective date of this AD: Perform a detailed inspection for cracks of the radome assembly, in accordance with the Accomplishment Instructions of Live TV Service Bulletin B737-53-0011, dated March 29, 2013. Repeat the inspection thereafter at intervals not to exceed 1,250 flight hours. If any crack is found during any inspection required by this paragraph, before further flight, replace the radome in accordance with the Accomplishment Instructions of Live TV Service Bulletin B737-53-0011, dated March 29, 2013.

**(h) Reporting Requirement**

If any crack is found during any inspection required by paragraph (g) of this AD, submit a report of the findings to Live TV, 8900 Hangar Boulevard, Orlando, FL 32827; telephone 407-812-2600; fax 407-812-2526; email [JaneAnne.Webb@livetv.net](mailto:JaneAnne.Webb@livetv.net); at the applicable time specified in paragraph (h)(1) or (h)(2) of this AD. The report must include the information specified in the service bulletin reporting form provided in Live TV Service Bulletin B737-53-0011, dated March 29, 2013.

(1) If the inspection was accomplished on or after the effective date of this AD: Submit the report within 30 days after the inspection.

(2) If the inspection was accomplished before the effective date of this AD:

Submit the report within 30 days after the effective date of this AD.

**(i) Special Flight Permit**

Special flight permits, as described in Section 21.197 and Section 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199), are not allowed.

**(j) Paperwork Reduction Act Burden Statement**

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2120-0056. Public reporting for this collection of information is estimated to be approximately 5 minutes per response, including the time for reviewing instructions, completing and reviewing the collection of information. All responses to this collection of information are mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to the FAA at: 800 Independence Ave. SW, Washington, DC 20591, Attn: Information Collection Clearance Officer, AES-200.

**(k) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, Atlanta Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in the Related Information section of this AD.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(3) If the service information contains steps that are labeled as RC (Required for Compliance), those steps must be done to comply with this AD; any steps that are not labeled as RC are recommended. Those steps that are not labeled as RC may be deviated from, done as part of other actions, or done using accepted methods different from those identified in the specified service information without obtaining approval of an AMOC, provided the steps labeled as RC can be done and the airplane can be put back in a serviceable condition. Any substitutions or changes to steps labeled as RC require approval of an AMOC.

**(l) Related Information**

(1) For more information about this AD, contact Barry Culler, Aerospace Engineer, Airframe Branch, ACE-117A, FAA, Atlanta Aircraft Certification Office (ACO), 1701 Columbia Avenue, College Park, GA 30337; phone: 404-474-5546; fax: 404-474-5605; email: [william.culler@faa.gov](mailto:william.culler@faa.gov).

(2) For service information identified in this AD, contact Live TV, 8900 Hangar Boulevard, Orlando, FL 32827; telephone 407-812-2600; fax 407-812-2526; Internet <http://www.livetv.net>. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW, Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington, on July 23, 2013.

Stephen P. Boyd,  
Acting Manager,  
Transport Airplane Directorate,  
Aircraft Certification Service.

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